

September 17, 2019



U.S. Department
of Transportation

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 20934

EXPIRATION DATE: 2021-01-31

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: SPACE EXPLORATION TECHNOLOGIES CORP.
HAWTHORNE, CA
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of spacecraft containing krypton, compressed in non-DOT specification cylinders. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
 - b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.
 - c. No party status will be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR Part 172 Subparts D and E in that marking and labeling is not required; and § 173.302(a) in that a non-DOT specification packaging is authorized as specified herein.
5. BASIS: This special permit is based on the application of Space Exploration Technologies Corp dated August 22, 2019 submitted in accordance with § 107.117 and the determination that it is necessary to prevent significant economic loss.

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6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Krypton, compressed	2.2	UN1056	N/A

7. SAFETY CONTROL MEASURES:a. PACKAGING:

(1) The prescribed packagings are non-DOT specification seamless aluminum cylinders meeting the requirements of special permit DOT-SP 12440. Cylinders must be designed, analyzed and tested in accordance with Volume 3, Chapter 12 of the U.S. Air Force Space Command Manual (AFSPCMAN) 91-710, and as described in the application on file with Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD). The cylinders are a component of Space Exploration Technologies Corp.'s manufactured satellites and integrated into the satellites.

(2) Satellites must be further packaged inside metallic, humidity-controlled containers.

b. MARKING:

(1) The outer container containing the satellite(s) must be marked on two sides, in letters at least 2 inches high on a contrasting background, "DOT-SP 20934".

(2) The marking requirements of Part 172 Subpart D do not apply.

c. PLACARDING: In lieu of labeling in accordance with Part 172 Subpart E, each container must be placarded using the NON-FLAMMABLE GAS placard.

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d. OPERATIONAL CONTROLS:

(1) Transportation is authorized for Space X communication satellites from Redmond, WA to both of Space X launch sites. The planned over the road movements are:

(i) Seattle, WA to Cape Canaveral Air Force Station and Kennedy Space Center, FL;

(ii) Seattle, WA to Vandenberg Air Force Base, CA;

(iii) Seattle, WA to NASA Plum Brook Station, OH; and

(iv) NASA Plum Brook Station, OH to Seattle, WA.

(v) NASA Plum Brook Station, OH to Cape Canaveral Air Force Station and Kennedy Space Center, FL

(2) The space capsule assembly must be shipped secured in one of the transport fixtures as described and in accordance with the procedures on file with the OHMSPA.

(3) All drivers transporting the satellites must meet and are subject to all requirements of 49 CFR Parts 383, 391 and 392. Drivers must not be less than 25 years old and have the requisite experience for driving HAZMAT loads. SpaceX must select carriers that maintain a safety rating as assigned by the Federal Motor Carrier Safety Administration (FMCSA) of "Satisfactory" pursuant to the procedures specified in 49 CFR Part 385. Designated routes are determined and reviewed before each satellite shipment to ensure compliance with the minimum the criteria specified in 49 CFR Part 397.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package or its contents and it is reoffered for transportation in conformance with this special permit and the HMR.

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- b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each motor vehicle used to transport packages covered by this special permit.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
 - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704. No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) – "The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49

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CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for William Schoonover
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: Andrew Eckenrode